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CONTENTS.

MEDICAL PROGRESS.

Medical Convention of the State of Alabama, 17
An Address delivered before the Ohio County Medical Society, on the evening of its organization, - - - - - - - - 22
Philadelphia College of Physicians, - - 23
Philadelphia Medical Society, - - - 24
University of Pennsylvania, - - - - 24
Medical Society of Delaware, - - - 24
Medical Faculty of Harrisburg, - - - 24
New York State Medical Society, - - - 24
Northern Medical Association of Philadelphia, - - - - - - - - - 24
Rock River Medical Society, - - - - 24
Rush Medical College, - - - - - 25

ETHERIZATION.

Report of the Committee of the Medico-Chirurgical Society of Edinburgh on the Properties of Chloroform. - - - - - - 25
Professor Simpson's Process of Purifying Chloroform, - - - - - - - 35
Cæsarean Section, - - - - - - - 35
Etherization, - - - - - - - - 35
Another new Anæsthetic Agent, - - - 35

MEDICAL NEWS.

Domestic Intelligence.—Sanatary Survey of Massachusetts, - - - - - - - 35
Decoction of the Cotton Plant to promote uterine contraction, - - - - - - - 36
Maryland Medical Institute, - - - - 36
Obituary Record, - - - - - - - 36
Foreign Intelligence.—Rupture of Spleen—Hemorrhage—Death, - - - - - - 36
Detection of Arsenic in the fluid of a blister, 36
Vesico-vaginal Fistula, - - - - - - 36
Obituary Record, - - - - - - - 36

TODD & BOWMAN'S PHYSIOLOGY, TWELVE PAGES.

MEDICAL PROGRESS.

Medical Convention of the State of Alabama.—A convention of the physicians of Alabama was held at Mobile, on the 1st of Dec. last. The following officers were appointed.

President, Wm. B. Johnson, M. D., Perry county.

First Vice President, R. Lee Fearn, M. D., Mobile. *Second Vice President*, A. G. Mabry, M. D., Selma.

Secretaries, Geo. F. Pollard, M. D., Montgomery, Wm. B. Crawford, M. D., Mobile.

Treasurer, Geo. A. Ketchum, M. D.

The following Preamble and Resolutions were proposed by Dr. A. Lopez.

Whereas, It has become a settled conviction with the Medical Faculty generally, throughout the United States, in which the State of Alabama especially participates, that wide spread and formidable evils have attached themselves to the profession from sources hitherto overlooked; and that a climax has at length been reached, which, without a stern and undivided effort at once on our part, must inevitably tend to the utter subversion of that high and important position which it behoves us to sustain: And, whereas, recent demonstrations have been made by the assembled wisdom and virtue of our professional brethren at the late National Medical Convention held in Philadelphia, bearing immediately upon the consummation so devoutly to be wished:

1st. *Resolved*, That this Convention hail the proceeding of the National Medical Convention as the harbinger that a new and irresistible momentum will be given to the moral and intellectual perfectibility of our profession, and that our sympathies are with them in the prosecution of the good work begun.

2d. *Resolved*, That in order to evince the sincerity of this declaration, we most strenu-

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VOL. VI.—3.

ously recommend to the different Medical Societies of the State, to appoint Delegates to the National Medical Association to be held in Baltimore on the first Tuesday of May next, and we earnestly recommend to the State Medical Association to be held in Selma in March next, the propriety of appointing Delegates to represent the Association in the same National Convention.

3d. *Resolved*, That this Convention appoint a committee to examine the code of Medical Ethics prepared and published by the late National Medical Convention, and if approved, recommend it to this Convention as a standard by which the Faculty of the State of Alabama be hereafter governed.

On motion, adopted.

Committee appointed under third resolution, as follows: Dr. Lopez, Chairman; Drs. Fearn, Lewis, Mabry, Dorsey, Barnes, and Clark.

The following resolution was proposed by Dr. Fearn:

Resolved, That a committee of seven be appointed for the purpose of reporting to this Convention on the laws and regulations of the State of Alabama affecting the practice of medicine, and the sale of drugs and medicines.

Adopted, and the following committee appointed:—Richard Lee Fearn, Chairman; Drs. Mabry, Clark, Lewis, Dorsey, Lopez and Mason.

The following preamble and resolution were proposed by Dr. A. G. Mabry:

Whereas, it is a fact which few will attempt to controvert, that annually for years past too many young men have entered the medical profession in the United States—a number far exceeding that which the wants of the country required, and the result of which has been the drawing off from agriculture, the mechanic arts, and other pursuits, a large number of persons who were well calculated to succeed in the prosecution of such pursuits, thereby becoming useful members of society, and securing for themselves a comfortable support for their declining years; but who, being unprepared for the responsible duties of practitioners of medicine by defective education, and the hasty process by which they have been manufactured doctors, and allowed to assume these duties, instead of becoming useful members of society, have, by an unwise selection of a profession, the duties of which they were not prepared to perform, sacrificed their time; and by lives spent in idleness and profligacy, often, far too often, bring disgrace upon themselves and reproach upon their families, their friends, and the profession of which they have been permitted to become members. This must be owing to the inducements which are held out to young men to enter upon the study of medicine, and these again to a considerable extent to the great number of medical schools with which our country abounds. These schools, supposing that their fame and prosperity depend upon the number of students which they are able to attract to their lecture rooms, have, in order to increase their prosperity and secure the attendance of full classes, held out such inducements as have generally, if not universally, accomplished the object proposed, but have so reduced their fees, curtailed the time of study, and abandoned, one after another, those requirements which were all, at one time, universally considered indispensably necessary to entitle an individual to the honors and privileges which belong to a degree of Doctor in Medicine, that so little is now required that almost every one who presents himself as a candidate, receives these honors and privileges, and is sent forth as a practitioner of medicine. This state of things has long operated as an evil upon the best interests of our country, and its correction is an event which we most cordially desire to see consummated.

Be it, therefore, *Resolved*.—

1st. That we earnestly recommend to the Medical Schools throughout the United States to adopt the system of reform which was recommended by the National Medical Convention which assembled at Philadelphia in May last.

2d. That we and each of us do pledge ourselves to exert our influence in favor of such schools as shall adopt such a system, or show a willingness to do so, and withhold it from all such as shall fail to adopt it, or show an unwillingness to do so.

3d. That Alabama has no medical schools within her limits, and does not desire one; but since she must receive doctors from the institutions of other States, she claims the right to express her sentiments freely upon the subject.

4th. That the qualifications required by the different medical schools in the United States, of applicants for the degree of Doctor of Medicine, are so limited as to be attainable by individuals of limited pecuniary means and very ordinary capacity.

5th. That hereafter no one should be permitted to assume the duties of practitioner of medicine in the State of Alabama, who has not obtained a diploma from some respectable medical institution.

6th. That a fine should be imposed by law upon all such as may fail to comply with the requirement of the resolution next above.

7th. That we consider the vending of nostrums and patent medicines in the State of Alabama an evil, and for the correction of which every vender should be required by law to affix to the medicine which he sells a label in English, showing the ingredients which it contains.

8th. That all persons who vend patent medicines and nostrums are governed by motives of self interest, and as they receive aid and protection from the law, they should be required to pay a tax proportionate to the amount of aid and benefit thus received.

Received and referred to Dr. Fearn's committee.

The following resolutions were proposed by Dr. Mason:

Resolved, That a committee of five be appointed by the President for the purpose of preparing and presenting to the Legislature a memorial or petition, praying a tax upon all nostrum and patent medicines sold within the limits of the State.

Resolved, That it be signed by the President and Secretaries of this Convention.

Received, and referred to Dr. Fearn's committee.

The following resolution was proposed by Dr. Dorsey:

Resolved, That a committee of seven be appointed by the Chair to report a draft for the organization of a State Medical Society.

Received, and committee appointed as follows: Dr. P. H. Lewis, Chairman, (Dr. Dorsey declining,) Drs. Morgan, Barnes, Miller, Gaines, Ketchum and Woodcock.

Dec. 3d.—The Committee on the proceedings of the National Medical Convention, Dr. A. Lopez, Chairman, submitted the following Report:

The Committee to whom was referred the preamble and resolutions introduced on the 2d instant, calling upon this Convention to express their approval of the proceedings of the late National Medical Convention assembled at Philadelphia, beg leave respectfully to

REPORT, That they unanimously approve of the Preamble, as indicating a high sense of the obligation under which the Medical Faculty of the United States have been laid by the zeal, industry, and professional pride characterizing the labors of the National Medical Convention on all subjects in which the dignity and welfare of the Physicians of the Union are concerned.

Your Committee consider the first resolution following, as equally entitled to adoption by this Convention, because it corroborates, by an expression of its sympathy, the acknowledgment set forth in the preamble.

With reference to the second resolution, calling upon this Convention to nominate through the committee a number of Delegates to represent it at the meeting of the National Medical Convention, to be held in Baltimore on the first Tuesday in May next, your committee are induced by common consent so to modify the original resolution as to transfer this appointment into the hands of the "State Medical Association" about to be formed, because, when such Association is created, the existence of this Convention of necessity terminates by its limitation, and of course cannot be represented. The Committee therefore beg leave to recommend to this Convention the adoption of the following amendments:

Resolved, That in order to evince the sincerity of this declaration, we most strenuously recommend to the State Medical Association about to be formed, and to all Medical Societies and Boards now in existence in this State, to appoint delegates to the National Medical Association to be convened at Baltimore in May next.

Your Committee are solemnly impressed with the overruling necessity which demands a uniform and effective system of laws, whose moral obligation shall be directed to the preservation of self-respect, and which may conduce to it among the regular medical practitioners of this country, without reference to individual or sectional distinctions. They believe that the spirit which is now abroad is regenerating, and that there is "healing on its wings," and that it has laid its foundation upon principles neither light nor transient. They foresee that if this spirit be fostered, as it deserves to be, there must eventuate, beyond all chances of failure, a broad platform upon which the medical profession of this Union can meet, impelled by one common interest, and that interest the *dignity*, *honour* and benefit for which the practitioner of medi-

cine has so anxiously sought. For this purpose your Committee conceive no step so effectual as a code of *Medical Ethics*, by which we shall be mutually bound to each other, to preserve inviolable against all infraction, those moral tenets which, under all circumstances, distinguish the individual, whatever be the relation in life he may be destined to represent. And, however direct and local may appear the need of laws by which this Convention be governed, yet upon the subject under review, your Committee consider there shall be one chain, whose links, indissolubly united, shall convey the impression communicated to it throughout this land, and whose influence shall not only bind the physician by the obligation it imposes, but command the homage and respect of the community in which he may reside. To this end, therefore, your Committee, after mature deliberation, have unanimously decided that they could not provide for such purposes anything more suitable than the "Code of Medical Ethics" adopted and published by the "National Medical Convention," and would respectfully advise that this Convention recommend, by resolution, that the State Medical Association, as soon as formed, cause to be published as many copies of this code as may be required for distribution in this State.

Your Committee most especially beg leave to recommend to this Convention, that it unite in one voice in the most unqualified praise for the high-toned, independent and self-sacrificing magnanimity by which the Medical department of the University of Pennsylvania has distinguished itself in becoming the pioneer, to place the first foot upon the threshold of the usages in this country, regardless of all consequences to themselves, and governed alone by an eye single to the general good of the profession they so honourably represent.

Your Committee express to this Convention their approval of the preamble and resolution offered by Dr. Mabry on the 2d inst., so far as they refer to the recent action of the National Medical Convention, and recommend them for adoption.

Your Committee, perhaps, have exceeded the duties rigidly defined by their appointment, but they rely upon this Convention to consider such trespass, (if it be one,) as intended to facilitate and expedite the business of the Convention, by bringing under one supervision, all such subjects as have a common bearing. All of which is respectfully submitted. Signed, A. Lopez, *Chairman;* Rich'd Lee Fearn, T. P. Barnes, P. H. Lewis, A. G. Mabry, A. B. C. Dorsey, Rich'd Clark.

Dr. Fearn's Committee on the laws relative to the practice of Medicine and Surgery, and also the vending of nostrums and patent medicines, and to whom was referred various resolutions which had been offered, and all other matter requiring legislative action, submitted the following report, which, after much debate and proposed amendments, was adopted as follows:

Report of Committee.—The Committee appointed for the purpose of taking into consideration the existing laws and regulations in this state, connected with the practice of medicine, and the sale of drugs, medicines, &c., and also for the purpose of reporting on several resolutions and suggestions which had been offered to the Convention, appertaining to these subjects, beg leave to report the following as the most important suggestions which their limited time and means have enabled them to make.

First. That all portions and parts of the laws prescribing the powers and duties of the several medical boards in relation to the examination and licensing applicants to practice Medicine and Surgery in the State, be repealed; and that hereafter the registration of the names of those who have presented diplomas from respectable medical schools, shall be evidence in all cases, of the right to practice Medicine and Surgery, and be admitted as such by all courts of justice in the state.

Second. That apothecaries, and all other persons selling drugs and medicines of every description, be required to procure a license for that purpose.

That the power of granting said license shall be placed in the medical boards of the state, and that they be required, as a part of their regular duties, to examine all applicants for this purpose, under the same laws and regulations as they formerly examined applicants for the practice of Medicine and Surgery.

That any licensed apothecary or druggist who prescribes any medicine for any disease or affection, without the prescription or advice of a licensed physician, shall be liable to all the fines and penalties imposed upon physicians for doing the same without a legal license.

That all persons who practice Medicine, Surgery, &c., or who sell drugs and medicines without license, shall be subjected to the same laws that now exist, and are especially applied to those who sell poisons to ignorant persons, slaves and servants.

Third. That all persons engaged in the sale of patent medicines and nostrums, shall be compelled to affix to the article so offered by them, a label in intelligible characters, showing the ingredients of which it is composed, or failing to do so, shall be liable to all the pains and penalties inflicted by the laws on those who are guilty of assault and battery with intent to kill.

Fourth. That coroners of each county be appointed by the medical boards in or adjacent to said county, and that the fees of office shall be so augmented, as to induce competent persons to seek, and attend to the duties of the office.

Fifth. That the legislature provide, that when physicians or licensed apothecaries are called upon by the solicitors for the state to give medical advice, or by the coroner to make *post-mortem* examination, or chemical analyses, it shall be considered professional, and remuneration recovered in proportion to services rendered, as in all cases in which they may be entitled to recover fees.

Sixth. That assessors of taxes in every county be required to take a list of all births, deaths, and marriages, and that this list be recorded each year by the Clerk of the County Court, in a book especially appropriated to that subject.

Seventh. That physicians and apothecaries, for attendance and medicines furnished to slaves under mortgage, in the hands of trustees, agents, and all other circumstances of doubtful or obscure title, shall have a lien on the slave or slaves so attended or furnished, to the amount of their legally authorized bills, in the same manner, and under the same regulations as the lien laws for the security of mechanics and laborers in relation to steamboats, &c.

Your Committee have closed their imperfect and hurried report; many subjects of reform, not embraced in these recommendations, have been under consideration, but they have been impressed with the opinion that the legislature of our State, having rarely manifested a disposition to aid in medical reform, may not find the time at the present session to consider what we have already recommended. Respectfully submitted. Rich'd Lee Fearn, *Chairman*; A. G. Mabry, P. H. Lewis, A. Lopez, Rich'd Clark, A. B. C. Dorsey, Thos. W. Mason.

The following resolution was proposed by Dr. Hogan:

Resolved, That a committee of three be appointed by the chair, to memorialize the legislature on the subject of the foregoing resolutions. Adopted.

Committee, Drs. Hogan, Rembert, and Kelly.

The preamble and resolutions proposed by Dr. A. Lopez, on the 2d instant, were called up in order, when the preamble was withdrawn by Dr. Lopez, as conflicting with the resolutions of Drs. Fearn and Mabry.

The resolutions are as follows:

Resolved, That we adopt the sentiments on preliminary education, recommended by the late National Medical Convention, viz.: That henceforward every member of the medical profession throughout the State exact a certain standard of preliminary education as a pre-requisite from every young man who may desire to enter his office as a student of medicine; and, being so exacted, to grant him a written certificate to that effect, specifying also the period of his admission into the preceptor's office, as a proper warrant and credential for the student when about to enter a medical college.

Resolved, That a committee of three be appointed by the chair, to decide upon this standard; this Convention confiding to their judgment and liberality, the adoption of such an one as will not bear too rigorously upon the applicant, and, at the same time, serve to exalt the future character of the profession.

Committee appointed by the chair: Dr. A. Lopez, chairman, Drs. Rembert and Kelly.

Dr. Mason proposed the following:

Resolved, That this Convention will not countenance the common practice of regular practitioners signing a certificate recommending any nostrums or patent medicines. Adopted.

Dec. 4th.—The report from the Committee on the formation of a State Medical Society, was read, amended and adopted.

The report of the Committee on Preliminary Education, Dr. A. Lopez, chairman, was received and adopted, as follows:

The Committe to whom was referred the resolutions on preliminary education, with instructions to propose a standard of preparatory studies which shall be required of applicants to be received as students of medi-

cine in the offices of regular practitioners of medicine throughout the state, have given to the subject the consideration it merits, and beg leave respectfully to report:

That they fully appreciate the necessity of the requisition, and mindful of the appeal to our liberality, they trust that, in recommending what they consider a preparatory course for young men who seek to enter among us as intelligent and honourable competitors, they will not stand chargeable with the desire to hem in the applicants by such hard conditions as to amount to a prohibition. Such is not their object.

The field is wide enough. All that we ask is, that the Convention discharge its duty to itself and to society, by providing that such space be occupied by gentlemen, who will neither directly nor indirectly reflect discredit upon the medical character.

Communities are already too prone to strike an unjust average, whenever the selection of the physician is concerned. They say, (and perhaps with a show of truth,) that the line of discrimination is scarcely perceptible, that divides the shrewd and observing man who launches forth upon his own responsibility, irrespective of legalized right, and the alumni of the best schools, who leave the college walls unfit to fulfil the arduous and solemn responsibilities of their calling.

It is our duty, then, to rectify this perversion of public opinion, and it is the belief of your Committee that the remedy must be sought, in the first instant, at the portals of your colleges. These avenues should not be opened to applicants without pretensions, which shall be recognized as passports to their confidence, and if our medical professors are desirous to promote the standard of our profession, they must receive the countersign from the outposts.

The petitioner for matriculation must present himself armed with such testimonials as will assure the professors that all has been done in the premises that is required, and this can only be accomplished by such a certificate as is advised in the resolution upon which the Committee now report.

We therefore consider and recommend that all regular practitioners of medicine in the State of Alabama, should demand of those who desire to enter their offices as students, that they come thus prepared:

First. That they possess a good English education, such as is taught at the most respectable elementary schools.

Second. That they be sufficiently acquainted with the Latin language, to serve them in comprehending the technical terms used in medicine, and to read and write prescriptions with facility and accuracy.

Third. A certificate from the last teacher as to the progress made in the studies prescribed.

Your Committee are aware that higher branches have been deemed requisite, and so recommended, but they do not coincide with these views. It is true that the knowledge of such departments of learning, as well as many others, are desirable in order to perfect the accomplished physician. But the object of your Committee is to open the door to the meritorious and the talented, not to proscribe beyond reason.

With these considerations, the Committee respectfully submit their report. A Lopez, *Chairman*, A. R. Rembert.

The association adjourned to meet at Selma, on the 8th of March, 1848.

—

An Address delivered before the Ohio County Medical Society, on the evening of its organization, July 5th, 1847. By M. H. Houston, M. D., Member of the American Medical Association. Published by the request of the Society. Wheeling, 1847.

This address commends itself to the attention of the profession no less by the interest of the subject therein discussed,—Medical Reform,—than by the ability with which the author has treated it.

Dr. Houston reviews the plan of organization of the American Medical Association, shows its defects,—defects which will no doubt hereafter be remedied—and then remarks as follows:—

"It is proverbially, much easier to tear down a fabric, not erected on a solid foundation, than to build up another, upon a broader and more permanent basis, and yet, in the present instance, although the task may be attended with many difficulties, not yet foreseen, I cannot bring myself to think it entirely impossible. From all that has been said, you will readily infer, that the first step to be taken, will be to lay the foundations so broad as to cover the whole length and breadth of our common country, and so deep, as to sustain and support any superstructure you may think proper to impose upon it. You must devise and adopt some measure, which will bring the whole medical profession into one common fold—

some plan, which will arouse the energies, excite the sympathies, and direct the talents of every respectable medical man, for the accomplishment of one common object—the great object of medical reform—some system of rewards and punishments, by which the unworthy may be disgraced, the indifferent excited to activity, and the laudably ambitious honorably rewarded. Is such a scheme Utopian in conception, and impractable in execution?

"Suppose for a moment, the plan of organization embraced a provision, by virtue of which, every respectable practitioner of medicine in the United States, would be entitled to become a member of the National Medical Association—suppose it provided for the organization of medical societies, in every county and city, in every State of the Union, as constituent parts of the entire plan of government—suppose these local societies not only to have the power, but to be required, to send one or more members, according to their numbers, to a state convention to be assembled annually, and that each state convention have the power, and be required, to send a certain number of delegates, (not necessarily to be chosen from their own body, but from the profession throughout the state,) to a National Medical Union, which should constitute the great judicial and representative head of the profession in the United States. Suppose, further, that, under certain penalties for refusal, every practitioner of medicine should be required to become a member of a local society—that the local societies should be required to adopt the general code of medical ethics, to be signed by every member, at the time of his signing the constitution—that for refusing to do so, every man calling himself Doctor of Medicine, should be degraded into the ranks of common quackery, and treated as a quack—that the members should be bound to hold no communication, either professional or otherwise, with any such quacks—that the names of all such, together with the roll of the members of the society, should be forwarded annually to the state conventions, to be by them published and sent up to the National Union—that the local societies should be required to furnish to their members certificates of membership, which certificates should constitute a passport to the favourable regard and friendly attention of the members of the association throughout the country, and the want of such certificate by any one, calling himself doctor, should secure him the treatment due only to a quack—that the local societies should have the power of punishing members, by expulsion or otherwise—that the party so punished, should have the right of appeal to the state convention, and under certain restrictions from the decisions of the state convention, to the National Medical Union, whose decisions in all cases should be final—suppose, in short, that the members of the whole profession should organize themselves into a republican, representative government, with proper checks and balances, what would be its effect in carrying out the great objects of reform?"

After showing by an example, the practical operation of such a system as he proposes, he observes:—

"Such a general plan of organization for the members of a learned profession, is neither novel nor visionary. Such an organization has existed in our own country, for more than two hundred years, and it is a very remarkable fact, that, during the whole of that long period, there is to be found scarce a solitary exception to the general rule, that no uneducated man has ever been admitted into its professional ranks. Such exceptions, when made, were of course alike honourable to those who made them, and to those in whose favour they were made. It is believed that several denominations of divines, have organizations very similar to the one which has just been faintly sketched. They all have their local bodies—their state bodies, and their great national heads, corresponding to the local societies—the state conventions and the great National Union, the existence of which I have supposed in our own profession, and they all prove efficient in maintaining the respectable standing of their members. Although there may be some differences in their favour, yet I cannot believe that there exists any substantial reason why such an organization would not be productive of the same good effects in the medical profession. To ensure success, it will only be necessary to give it a full start, and a fair trial—not the trial of a single year, but a strict adherence to the principles of the organic law, during a succession of years."

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Philadelphia College of Physicians.—At a meeting of the College of Physicians, of Philadelphia, held February 8th, 1848, the

recommendation of the Lancaster County Medical Society, that the convention for forming a State Medical Society, be held in the city of Lancaster, on the second Tuesday (11th) of April next, was adopted, and the following appointed as delegates:—Drs. Samuel Jackson, Isaac Hays, Joseph Carson, Rene La Roche, John D. Griscom, Lewis Rodman, J. Forsyth Meigs, Victor L. Godon, Squire Littell, and Francis G. Smith.

At the same meeting, the following were elected delegates to represent the College in the National Medical Association, at its session to be held at Baltimore, in May 1848:—Drs. Isaac Hays, Samuel Jackson, Henry Bond, D. Francis Condie, George Fox, Alfred Stillé, William Pepper, Chas. R. King, J. Rodman Paul, and Chas. D. Meigs.

Upon both delegations, the power was conferred of filling up any vacancies that may occur in their respective bodies.

—

Philadelphia Medical Society.—The following are the delegates of the Philadelphia Medical Society, to the "National Medical Association"—elected Feb. 5th, 1848.

Drs. B. H. Coates, C. Morris, Bell, Bridges, Ashmead, Reese, Emerson, Warrington, J. Parrish, and West.

The Delegates to the "State Convention" at Lancaster, elected at the same time, consist of Drs. Emerson, Bell, B. H. Coates, Norris, H. H. Smith, Rutter, Shalcross, Bond, R. Paul, and J. Parrish.

JOHN J. REESE, *Secretary.*

—

University of Pennsylvania—The Medical Faculty have appointed Profs. S. Jackson and Wm. Gibson, delegates to the State Convention.

—

Medical Society of Delaware.—At a meeting of this Society held at Wilmington, on the 15th of Dec. last, the following named delegates were appointed to the American Medical Association:—*From New Castle Co.*, Drs. Porter, Merrit, Askew; *Kent Co.* Drs. Jump and Perkins; *Sussex Co.*, Drs. Maull and McFarran; and each delegate was authorized to appoint an alternate in case of his inability to attend.

The following resolutions were also adopted. Resolved:—

That this society regard the unanimity which characterized the proceedings of the National Medical Convention at its annual meeting in May last, and the prospective field of action then unfolded, as sources of gratification, and as calculated to advance the best interests of the medical profession, and of the community at large, by elevating the standard of medical education and ethics, and by exciting a spirit of scientific investigation throughout the Union.

Resolved, That this society coincide in the recommendation of the Convention as respects preliminary education, the requirements of medical schools, and registration of births, marriages, and deaths, and that its efforts shall be directed to the advancement of the objects therein contemplated.

Resolved, That a committee of three be appointed to present the matter of registration of births, marriages, and deaths, before the legislature at its next session.

—

Medical Faculty of Harrisburg.—At a meeting on the 24th Feb., Drs. Riley, Henderson, Roberts, B. J. Wiestling and Miller, were appointed delegates to the State Medical Convention, to be held in Lancaster.

—

New York State Medical Society.—At annual meeting of this Society, held at Albany, on the 1st of Feb., Dr. ALEX. H. STEVENS was elected President; Dr. ALEX. P. THOMPSON, Vice President; Dr. P. VAN BUREN, Sec., and Dr. P. VAN OLINDA, Treasurer.

The following delegates were appointed to represent the Society at the meeting of the American Medical Association in May next. Drs. Dyer Loomis, Augustus Willard, John McCall, P. H. Hard, S. Sprague, Robt. G. Frary, —— Brinsmade, Wm. Bay, John H. Wheeler, Darius Clark, —— Naudain, —— Delafield, Gurdon Buck, —— Beadle, —— Purple, Maltby Strong, Alex. Thompson, H. Burnell, Geo. W. Bradford, and Enos Barnes.

—

Northern Medical Association of Philadelphia.—This Association has appointed Dr. J. D. Stewart, Wm. Mayburry, John Rhein and Thomas Hobson, delegates to the State Medical Convention.

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Rock River Medical Society.—At the semi-annual meeting of this Society held at Beloit, W. T., the 16th Nov. 1847, the following resolution was unanimously adopted: "*Resolved*, That in the opinion of this Society, the reforms suggested by the American Medical Association, as to the prelimi-

nary education of students, their time of preparatory study, the branches taught in medical schools, length of sessions thereof, &c., are loudly demanded, and meet our entire approbation."

The following delegates to the American Medical Association were elected:—Drs. J. C. Goodhue, S. G. Armor, A. E. Ames, J. B. Nash, and A. Clark.

—

Rush Medical College.—At a meeting of the Faculty of Rush Medical College, on the 3d of January, 1848, the following preamble and resolutions were unanimously adopted.

"*Whereas*, a National Medical Association has been organized for the purpose of advancing the interests of the Profession, whose recommendations have thus far been generally judicious and worthy of adoption; therefore

"*Resolved*, That the Faculty recommend to the board of Trustees the creation of a Chair of Physiology and Pathology, and to increase the number of Professors to seven, and that a course of Medical Jurisprudence be added to those now given in this Institution.

"*Resolved*, That attendance upon a Hospital during one session, and the pursuit of dissections for twelve weeks shall be required of all candidates for graduation.

Resolved, That we stand ready to comply with the remaining resolutions of the Association, so soon as they shall be generally adopted by the medical schools of the West, or when it shall be apparent that the interests of the Profession require it."

In some remarks appended to the above, it is stated, that "the lengthening of the lecture term from four to six months, which is one of the recommendations of the Association, was taken into consideration, but it was regarded as a question upon the propriety of which doubts might be entertained. The lectures are now given sixteen full weeks without devoting one to introductories at the commencement, and another to examinations at the close of the term, and it was thought best to make the increase gradually, by first adding two weeks in order to ascertain whether students would be able to attend longer than sixteen weeks. Action on the question was deferred until correspondence could be had with other medical schools. In the meantime, in order to give such students as are disposed to do so, the opportunity of attending a longer term than the present, a practical course on Clinical Medicine and Surgery, and a course on Anatomy and Physiology during the months of March and April, will be given. If a large proportion of the Winter's class can be induced to attend, it will afford strong encouragement for lengthening the term to six months."—*Illinois and Indiana Med. and Surg. Journ.*, Dec. 1847.

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ETHERIZATION.

Report of the Committee of the Medico-Chirurgical Society of Edinburgh on the Properties of Chloroform. — Committee.— Dr. Hughes Bennet, *Convener.* Drs. Alison, Christison, Douglas Maclagan, Taylor, Duncan, Roberts, Allan Thomson, and Gardener.

Reporter—Dr. Hughes Bennet.—Since a committee was appointed at the meeting of this Society, on the 10th of last November, many of the points on which it was presumed it would have to deliberate, have already been decided by the profession at large. Perhaps there is no instance on record, where the discovery of a remedy has been so rapidly made known, and so universally adopted as that of the inhalation of chloroform. Thus, it is exactly only five weeks ago, that this substance was first publicly announced by its discoverer to this society, and in that short period of time it has been universally adopted as preferable to ether for annulling pain; it has been given to thousands of individuals, and already numerous ingenious instruments have sprung into existence to render its administration more certain and convenient. Only one week after the publication of Dr. Simpson's pamphlet on the subject, it was universally employed in the Parisian hospitals, and recognized as being superior to ether. The same appreciation of its advantages has everywhere attended its introduction. By means of the press, and by railways, a knowledge of its properties has already reached every part of Europe; and at this moment, probably, our American brethren are testing the merits of the new agent they have received from us, with the same interest and avidity with which we, last January, employed the old one we obtained from them.

But, although the great advantages and properties of chloroform are already fully estimated, there are many points connected

with its action on the animal economy that require to be elucidated. Moreover, as the observations and experiments made by the committee are not only in themselves interesting and unusually exact, but may tend to throw some light upon its physiological action, and many circumstances connected with it, a succinct report of their labours may still be not altogether unprofitable. It should be understood, however, that the committee as a body only guarantee the accuracy of the facts,—all the conclusions and theoretical statements rest solely on the authority of the reporter.

First Series of Experiments—November 13, 1847.—The first experiments before the committee were limited to observing the effects of chloroform inhalation upon the pulse and sensations, with various doses. They were mostly performed on young men, students or practitioners of medicine.

Experiment 1.—30 minims of chloroform were poured into a small bag of triangular form, made of oil skin, and lined with linen. The subject of the experiment was Dr. B——, æt. 25, who had previously more than once taken ether. Before the commencement of inhalation, he stated that he was somewhat excited, and the pulse was counted to be 120. After the first few inspirations, the pulse rose to 140. He inhaled a minute and a half without its producing any other effect.

The oil-skin bag was now laid aside, and ℥j of chloroform was poured on a handkerchief. In 1 min. 5 secs. unconsciousness was complete. The hand was pinched strongly, and several hairs of the head plucked out by the roots, without producing signs of sensibility. He continued insensible ¾ of a minute.

The *pulse*, which was 92 before the second inhalation, rose rapidly during its continuance to 120. It remained at 120, small, until the insensibility began to disappear, and then fell to 96.

Experiment 2.—The subject of experiment was Mr. P——, æt. 21, labouring under slight bronchitis. He had never inhaled either ether or chloroform previously, and his countenance was pale and somewhat anxious.

30 minims of chloroform were poured on a handkerchief, and applied to the mouth and nose. He inhaled 1 min. and 15 secs.; no insensibility was produced; he felt himself pinched. The *pulse* which, at the commencement of the experiment, was 94, rose rapidly to 120, and afterwards sunk to 84. Copious diaphoresis was produced.

℥j of chloroform was now poured on the handkerchief, and applied to the face. In 58 secs. he was completely unconscious. The *pulse* at the beginning of the second inhalation was 84, and remained so during the whole time of inhalation.

Experiment 3.—Dr. G——, æt. 28, inspired from a folded handkerchief on which ℥j of chloroform had been poured. In 45 secs. he fell backwards, perfectly insensible to pinching. On recovering, he stated that he seemed at first to be looking through a mist, and saw indistinctly. The *pulse* was raised from 84 to 98. Had frequently taken ether. The inspirations in this experiment were long and well performed; hence probably the rapidity of the action.

Experiment 4.—Mr. G——, æt. 20, had never taken ether. 30 drops of chloroform were used. The first few inhalations produced slight cough. He inhaled 58 secs., and said afterwards that he was unconscious; but he gave signs of sensibility when pinched, and when his hair was pulled.

30 drops more of chloroform were now placed on the handkerchief, and after inhaling 1 min. and 32 secs., he became completely unconscious. The *pulse*, which at the commencement of the second inhalation was 80, was not altered. He stated afterwards, that at first he thought he should have died of apoplexy, and he felt each stroke of his heart. There was considerable diaphoresis, but not so much as in the second experiment.

Experiment 5.—Mr. L——, æt. 19, had previously inhaled ether. 80 drops of chloroform (a large dose) employed. Became unconscious after a few inspirations, and says he remembers nothing after the first one. The *pulse*, 84 before inhalation, rose immediately to 120.

Experiment 6.—Dr. D——, æt. 22, had frequently inhaled ether. 20 drops of chloroform used. Was perfectly insensible to stimuli in 30 secs.; felt nothing. The *pulse* was 80, and was not affected.

Experiment 7.—Mr. Y——, æt. 38. ℥j of chloroform used. Became unconscious in 50 secs. There was slight cough at the commencement of inhalation. The *pulse* was 120 before inhalation, and afterwards became so rapid that it could not be counted.

Experiment 8.—Dr. W——, æt. 26, wished

to have two teeth extracted. ℥j of chloroform was used. Inhaled 1½ min., when Dr. Roberts extracted a tooth—the dens sapientia of upper jaw. The *pulse*, at first 108, rose to 120. On recovering, he said he was not altogether insensible, and that he had experienced a dragging sensation, but no pain. He thought the tooth had not been extracted, and again consented to have another attempt made.

He again inhaled one drachm of chloroform for two minutes, when, appearing to be unconscious, Dr. Roberts extracted the first molar of the left side in the under jaw. On recovering, he stated that he experienced the same sensation; but was surprised on hearing that both teeth were extracted.

Experiment 9.—Dr. M——, æt. 36, inhaled from a handkerchief on which twenty drops of chloroform were put, holding it in his own hand. In forty seconds it produced the most extravagant gayety, bursts of laughter, snapping of the fingers, and gesticulations expressive of great delight. On recovery, he stated that he had experienced exactly the same sensations as when he had taken nitrous oxide gas some time previously.

From this first series of experiments, it resulted that the effects of chloroform inhalation differed in different individuals, and according to the quantity employed. One drachm seemed to be the medium dose for producing unconsciousness. In the second series of experiments, therefore, this quantity was uniformly employed, and exact observations were made by different members of the committee as to the time the various effects were produced, and the changes in the pulse, respirations, skin, and pupils. The sensations of the individual also were accurately recorded. Stronger chloroform was used, and galvanic shocks, of considerable power, tested the sensations of the individual. Inhalation was also practised in different positions, with the results now to be detailed.

Second Series of Experiments.—November 17, 1847.—*Experiment* 10.—Mr. A——, æt. 22, had never inhaled previously. *Posture.*—Sitting. *Time.*—After inhaling 35 secs. he became red in the face, and very agitated. In 38 secs. he commenced talking an unintelligible jargon, which he continued until 1½ min., when, after struggling somewhat, and foaming at the mouth, he fell back on a sofa near him, perfectly quiet and insensible. The application of wires connected with a galvanic battery, which drew considerable sparks from the face and head, produced no signs of sensibility.

The *pulse*, which was 76 before the commencement of the experiment, rose shortly after to 84. During the period of unconsciousness, it fell to 48. On his recovery, it rose to 60, and when counted twenty minutes afterwards, was found to be 66.

The *pupil*, at the commencement of inhalation, was of medium size. In 30 secs. it became slightly dilated, and continued so until he recovered intelligence, when it returned to its original size.

Skin.—There was evident diaphoresis.

Respirations.—Owing to the agitation and struggling, the respirations could not be counted; but, during the unconsciousness, they were accompanied by loud stertor.

Sensations.—At first, experienced a choking sensation. He then saw everything green, and afterwards yellow. He remembered nothing more, and did not feel the application of galvanism.

In this experiment, the effects produced seemed to be very serious. There was intense congestion of the scalp and face, foaming at the mouth, stertorous breathing, and unusually slow pulse. He presented all the symptoms of apoplexy. He also recovered slowly.

Experiment 11.—Dr. W——, æt. 23, has inhaled both ether and chloroform, and is generally much excited.

Posture.—Sitting.

Time.—In 37 secs. laughed, struck his thighs, and exhibited signs of great gayety. In 2 mins. he appeared to be perfectly unconscious; he breathed stertorously; all the muscles of the body became rigid; and he was drawn backwards, as in slight opisthotonos. He continued in this state 2½ mins., during which time strong galvanic shocks were given, without producing any signs of sensibility. In 5 mins. he rose up.

The *pulse*, at the commencement, was 76, but soon rose to 84. When felt at two intervals during the tetanic rigidity, it was 92, and, after galvanism was applied, it was 120; 11 mins. after the commencement of the experiment, it was 104.

The *skin* was not affected, and the number of respirations, and the state of the *pupil*, could not be observed.

Sensations.—He felt, at first, the most delightful feelings, and saw prismatic colours

surrounding objects. He heard a ringing in his ears, and then became unconscious. He felt no galvanic shocks, but experienced fatigue for some time afterwards.

In this experiment some of the symptoms were also apparently serious, especially the stertorous breathing and opisthotonos. They were, however, accompanied with acceleration of the pulse, instead of retardation, as in the last case; and it is worthy of remark, that in the former experiment the symptoms were decidedly cerebral, whilst in the latter they were as distinctly spinal.

Experiment 12.—A young man, æt. 18, a printer by trade, being anxious to have a tooth extracted, was the subject of this experiment.

Posture.—Sitting.

Time.—In 1 min. and 18 secs. the handkerchief was withdrawn, and galvanism applied, which appeared to be felt. Inhalation was then continued 30 secs. more, when he became perfectly unconscious. The tooth was now extracted by Dr. Imlach. In 2 mins. and 18 secs. he again appeared to feel the galvanism. In 3 mins. and 18 secs., he had recovered.

Pulse at the commencement was 120, and when he was insensible, fell to 108, at which it remained until the tooth was extracted, when it fell to 84.

The *skin* was rather moist during the experiment, but the pupil underwent no change.

Sensations.—Stated that he saw, felt, or heard nothing. He was unconscious of the application of galvanism, although from the contortions produced, they evidently affected the muscles strongly.

In this experiment, no unpleasant symptom was produced, and evidence was afforded that the cerebral functions were first affected, and subsequently the spinal ones. On his leaving the room, it was discovered that the bladder had been evacuated, a circumstance which was only observed in this individual.

Experiment 13.—Mr. N——, æt. 26, has previously taken ether, and always been very violent, with stertorous breathing.

Posture.—Lying down.

Time.—In 35 secs. he struggled a little. In 1½ min. was perfectly unconscious, and breathing stertorously. The inhalation was then discontinued. In 2 mins. galvanism was applied without producing any effect. In 3 mins. it produced contortions of the face. In 5 mins. 45 secs. he became conscious, and in 6½ mins. sat up.

Pulse.—At the commencement 92; rapidly rose to 108. When he was breathing stertorously, it fell to 60, and continued so until consciousness returned, when it rose to 72.

There was no change produced on the *skin*, and the *pupil* during the stertor was dilated, and continued so.

The *respirations* at the commencement of the experiment were 35, and rose during the stertor to 42.

Sensations.—He experienced a strong pulsation in his head, and heard a loud buzzing noise. He saw and felt nothing, with the exception of slight suffocation at the commencement.

In this case the stertor, and the apparent oppression on the brain, were well marked. He was in no way violent, as he had formerly been; a circumstance which the committee attributed to the reclining position, but which he himself explained, by saying that his conduct was greatly under his control.

Experiment 14.—Mr. M——, æt. 20, had inhaled chloroform previously.

Posture.—Lying.

Time.—At the commencement of the inhalation, there was frequent cough. In 1 min. 15 secs. was perfectly unconscious to galvanism, and snored deeply. In 4 mins. he opened his eyes, and appeared conscious. In 15 secs. more, spoke; and in 5 mins. 15 secs. sat up.

Pulse.—At the commencement 84—immediately rose to 110. During the stertor it was 120 and small, but shortly after fell to 108.

The *skin* and *pupils* underwent no change.

The respirations, immediately after the inhalation, were counted to be 25. During the stertor they were 28.

Sensations —Saw the gas light of a blue colour, and felt a roaring in the ears, like a railway train passing through a tunnel. He had felt nothing; but his sensations, so far as he could recollect, were most delightful.

With the exception of the stertor, this gentleman appeared to be in a healthy sleep. To ascertain whether these effects were attributable to position, Dr. W——, the subject of Experiment 11, again inhaled in the recumbent position, and with a determination to control the excitement as much as possible.

Experiment 15.—Dr. W—— again.

Posture.—Lying.

Time.—In 30 secs. laughed, slapped his

thighs, and was as gay as formerly, but not so extravagantly. In 1 min. fell back, and stretched himself out. The muscles, though not flaccid, presented none of the rigidity as formerly, and there was no opisthotonos. In 1½ min. was quite insensible to the effect of galvanism, and breathed stertorously. In 3 mins. sat up. In 4 mins. stood up and staggered about the room, as one intoxicated. In 4½ mins. he recognized the hour by his watch, but the excitement continued some time afterwards.

Pulse.—84 after the first inspiration.

On this occasion, although the symptoms of excitement in the brain were well marked, they were evidently not so intense as formerly. The spinal symptoms also were not present.

Experiment 16.—Mr. A——, æt. 19, had often taken ether and chloroform. Dose, 20 drops.

Posture.—Lying.

Time.—In 30 secs. he rolled off the sofa, and lay upon the ground, insensible. In 1 min. and 15 secs. he sat up.

Neither the *pulse*, *skin*, *pupil*, nor *respirations* could be observed.

Sensations.—He experienced dizziness in the head, and ringing in the ears, followed by a pricking sensation like that of needles, which went down to his legs and feet. He then became unconscious.

Experiment 17 —Mr. B——, æt. 20, also inhaled only 20 drops.

Time.—He inhaled 1½ min. without any apparent effect. The handkerchief was removed for 6 secs., and then reapplied. In 36 secs. more, he was insensible to the action of galvanism. This continued 1 min., when he gradually recovered.

Pulse.—At commencement 96; rose immediately to 132. During the insensibility was 120, and at the end of the experiment sunk to 108.

Skin—Was covered with slight perspiration.

Pupil—Underwent no change.

Sensations.—He felt dizzy, and experienced an oppression at the chest; he then saw, heard, or felt nothing.

At the termination of this series of experiments, several members of the committee inhaled from the handkerchief, on which 20 drops of chloroform had been poured. They all sat upon the sofa, and held the handkerchief in their own hands. The effect in nearly all was great excitement of various kinds. In most, laughter and extravagant gayety; one gentleman imagined himself to be at a public dinner, listening to a speech which he applauded and cheered with the most extraordinary enthusiasm. In another gentleman, however, Dr. R., who was of full habit of body, æt. 38, the inhalation produced such pain and giddiness in the head, that he could not continue it. Another gentleman exhibited no excitement, but seemed as if in a tranquil sleep.

The next series of experiments were performed on animals.

Third Series of Experiments—November 20, 1847.—*Experiment* 18.—A lively leech was put under a small bell glass, in which 20 drops of chloroform had been diffused. In 2 min. and a half it became perfectly still and rigid, as if dead. Some minutes after, on the application of galvanism, slight movements were made, but it never recovered.

Experiment 19.—A large and vigorous frog was placed under a large bell glass, in which 30 drops of chloroform had been diffused. At first, no change seemed to be produced, but gradually his movements became less lively. In 40 seconds they were slow, and in 1½ min. he became immovable, as if dead; 3 minutes afterwards, on being removed from the glass, the application of galvanism produced a strong tetanic spasm. In half an hour he had so far recovered as to be able to crawl somewhat, but next morning he was found dead.

Experiment 20.—Another active and larger frog was placed in the same jar, in which only 10 drops of chloroform were diffused. In 30 seconds, the movements were less lively. In 4 min. 10 seconds, they became very feeble. The glass was now removed. Galvanism produced a powerful tetanic spasm. In 20 min. the animal had sufficiently recovered to crawl about, and on the following morning was found lively and active.

Experiment 21.—Another frog was put under the same bell glass, in which ℥j of ether was diffused. In 5 min. he was reduced to nearly the same state of weakness as the animal in the last experiment. On the removal of the bell glass, he rapidly recovered, and in 15 min. leaped vigorously.

Experiment 22.—A pigeon was put into a large bell glass, filled with atmospheric air, and confined there 2 minutes without its producing any effect. A fresh pigeon was then put into the same glass, in which 10 minims of chloroform had been diffused. In 1 min.

he fell down, the eyes closed, the feathers on the head and back stood up. In 2 min. the glass was removed. Galvanism caused the eyes to open, and the animal to shake its head. In 6 min. it began to revive, got up, and in 30 seconds more walked away.

Experiment 23.—Another pigeon was placed in the same jar, in which ʒj of chloroform was diffused. In 30 seconds the eyes closed. In 40 seconds he fell down, and could not be roused. The respirations were 108 in the minute. In 2 min. and a half they were 144. In 3 min. the respirations were invisible; and on removing the glass in 3½ min., the animal appeared to be dead, and never recovered.

Experiment 24.—ʒj of chloroform was poured on a handkerchief, and held to the face of a rabbit. In 80 seconds he fell down perfectly insensible. In 2 min. the respirations were 96. The handkerchief was then removed. In 3½ min. it endeavoured to get up, but was evidently too feeble. In 4½ min. walked without difficulty.

Experiment 25.—A handkerchief, on which 25 drops of chloroform had been poured, was held to the head of a hen. In 30 secs. it was perfectly insensible. In 2 min. the respirations were counted to be 30. They then became invisible, and the animal appeared dead for 3 min. longer. It then opened its eyes, and almost immediately got up and walked.

Experiment 26.—90 drops of chloroform were placed upon a handkerchief, which was held to the face of a rabbit. It struggled violently at first, but became insensible in 65 seconds. The respirations then were 36 in the min. ʒj more of chloroform was then put on the handkerchief. The respirations immediately became irregular and more rapid. In 3½ min. slight convulsions of the hinder legs occurred. In 4 min. no movement or respiration could be observed. Galvanism produced slight spasms, but the animal never recovered.

Experiment 27.—ʒij of chloroform, on a handkerchief, were applied to the face of a small cur dog. In 1 min. and 40 secs. it was perfectly insensible. The legs were rigid, and he uttered short suppressed cries. In 2½ mins. he ceased crying. The pupils became dilated; the respirations were 36 in the minute, and the limbs became placid. ʒj more of chloroform was then poured on the handkerchief. In 4 mins. from the commencement of the experiment, slight spasms of the hind legs occurred, and the heart's action became very rapid. In 7 mins. ʒj more of chloroform was poured upon the handkerchief, and in 9½ mins. no respiration or heart's action could be discovered with the stethoscope—the animal was dead.

On examining the bodies of the pigeon, rabbit, and dog, thirty hours afterwards, it was found that the right cavities of the heart were distended with blood, which was firmly coagulated. The lungs and the other organs were perfectly healthy.

Another series of observations consisted in examining the bodies of six rabbits, to whom poisonous doses of chloroform had been given in various ways.

Fourth Series of Experiments—December 14, 1847.—*Experiment* 28.—A strong rabbit was killed, by causing him to inhale ʒij of chloroform. On its first application, he struggled a little, but speedily lost sensation. The inhalation was continued, and the respirations became accelerated. In 2 mins. there were slight spasms of the hind legs. There were convulsive heavings of the chest, which, in 30 secs. more ceased. The heart's action, however, continued; but in 3½ mins. from the commencement of the experiment, these also ceased. The animal was dead.

On examining the body four hours afterwards, the right side of the heart was found inordinately distended with dark, firmly coagulated blood. Both lungs were intensely injected, and of a dark colour. The brain and other organs were healthy.

Experiments 29 *and* 30.—Two other rabbits were treated in exactly the same manner, and with the same results.

Experiment 31.—ʒj of chloroform was injected, apparently down the throat of a rabbit, with a common syringe. He died almost immediately, without any previous spasms.

On examining the body four hours afterwards, both lungs were dark-coloured, solid, condensed, exactly resembling the liver of the same animal, except at the margins, where a fringe of spongy lung surrounded the organ. On section, they yielded on pressure a quantity of chloroform. The right side of the heart was moderately distended with dark, coagulated blood. The brain was healthy. The stomach was distended with food; its lining membrane healthy. No trace of chloroform could be discovered in it.

From the results of this examination, it was evident that the chloroform had been

injected into the lungs, and not into the stomach as was intended. The nature of the change produced in these latter organs was not ascertained.

Experiment 32.—℥j of chloroform was injected into the right jugular vein of a rabbit. The animal rapidly became weak, and could not support himself. The respirations became gradually rapid and feeble; but when seen four hours afterwards, he was still breathing, although very exhausted. He was now caused to inhale chloroform, and expired in one minute.

On examining the body, the blood was found to be everywhere fluid. The heart was collapsed and empty. The lungs, brain, and other organs healthy.

Experiment 33.—℥j of chloroform was injected into the peritoneum of a rabbit. It soon produced partial coma, from which he soon recovered. Four hours afterwards it was quite lively and apparently well. It was then killed by chloroform inhalation in 3 mins. with the usual phenomena.

On examining the body, the lungs were found perfectly healthy. The right side of the heart contained firm coagula of dark blood. The brain was healthy. The peritoneum presented its natural appearance.

The results of these last experiments suggest several others, having more especial reference to the action of chloroform on the blood, heart, lungs, &c. From some experiments on animals especially, and from the post-mortem examinations of a few individuals who died soon after the inhalation of ether, it has been said to render the blood fluid. This is very doubtful.* At all events, firm coagula of blood in the heart were found in every case where chloroform was inhaled, except in the one where it was directly injected into the veins. The effect on the lungs also varied considerably; in some cases they were congested and engorged, in others healthy, and this under pretty near the same circumstances. Whether this be owing to the different strengths of the animals, mode of respiration, &c., is uncertain. These results, and especially the effects produced by injecting chloroform into the peritoneum, differ considerably from those obtained by Dr. Glover in 1842. But the whole subject requires to be re-investigated, and too much caution cannot be exercised in drawing conclusions from such experiments.

The physiological action of chloroform inhalation seems to be precisely similar to that of ether—producing loss, 1st, of the cerebral functions; 2d, of the spinal functions; and 3dly, of those of the medulla oblongata.

Its effects on the cerebral functions are often manifested by a degree of excitement which passes into coma.* At other times

* Since the report was read to the Society, I have, with the assistance of Dr. J. Duncan, performed two experiments, in order to test the influence of ether inhalation on the blood. These distinctly show that death caused in this way by ether, does *not* destroy the coagulability of that fluid.

Experiment 34.—℥j of ether was poured on some cotton wadding, and applied to the face of a rabbit. He at first struggled violently. In one minute the respirations became very rapid. In two minutes the respirations were slow and laboured. In four minutes, there were slight convulsions of the hind legs, and the respirations again became rapid. The convulsions continued only fifteen seconds. In seven minutes, the respirations had entirely ceased, but the heart's action continued. In eight minutes, the movements of the heart also could not be felt; the cotton was removed, and the animal put aside, as it was supposed to be dead. About one minute afterwards convulsive catchings were observed in the chest and head: the respirations gradually returned. In two minutes, it became sensible on pulling its fur, and shortly after got up. It was then killed by the continued inhalation of ether for five minutes.

Examination of the body forty hours after death.—The lungs were perfectly healthy. The right side of the heart gorged with blood, well coagulated. The brain and its membranes healthy.

In this experiment spontaneous recovery took place after a degree of exhaustion had been produced, which was mistaken for death, and after the functions of the spinal cord and medulla oblongata were apparently destroyed.

Experiment 35.—A smaller rabbit was treated in exactly the same manner as in the last experiment. There was at first struggling. It then became motionless, and the respirations were accelerated. In two minutes no respirations could be perceived. The heart's action, however, continued for nine minutes, and then apparently ceased. The cotton wadding saturated with ether was then removed. The animal was dead.

Examination of the body forty hours after death.—The left lung was engorged and congested throughout, of a deep mahogany colour. The right lung partially affected with the same lesion; about one-half of its spongy texture, however, was healthy, presenting its usual pink colour. Right side of heart and venous trunks distended with firmly coagulated blood. Brain somewhat blanched; at least, on comparing it with the brain of the other body, it was of a distinctly lighter shade.

These experiments show that death by inhalation of ether does not affect the coagulability of the blood. They also exhibit two very different actions on the lungs. This we have also seen to occur in former experiments (*Expers.* 26 to 33); and the circumstances which induce this engorgement in some cases and not in others, after fatal inhaling doses, are still undetermined.

* The word *coma* has been objected to by some, although, according to our present ideas, it would be difficult to separate the state induced by chloroform from that of coma. Assuredly a condition such as has been described, in which the strongest stimuli and even cutting fail to rouse the patient, and where stertorous breathing is present, can receive no other name. *Apathy* has been proposed, but it is something more than this. The terms sleep, lethargy, sopor, and coma, are considered by some as representing different degrees of loss of the cerebral functions. We have all degrees following the inhalation of chloroform.

the comatose state is induced directly, the previous one of excitement either not having been occasioned, or being so transient as not to be observable. It is evidently a matter of importance, and ought to be a principle in the administration of this and similar agents, to produce suspension of the consciousness of the individual, without, if possible, causing previous excitement of the cerebral functions. This, Dr. Simpson has shown, may be best accomplished by insuring quietude, and giving a large and rapid volume of the vapour at first. It is probable, however, that two other circumstances may operate; viz. 1st, the will of the individual, it having been shown by experiment (*Exper.* 13), that individuals can, to a certain extent, control their excitement; and 2d, the posture of the person inhaling, the recumbent position having in some experiments (*Exper.* 15) been shown to diminish excitement where it formerly existed.

As regards its effects upon the spinal functions, we have seen that in one individual (*Exper.* 11) tetanic symptoms were produced; in another (*Exper.* 12) there was involuntary evacuation of the bladder. In females spinal symptoms are more common, the unconsciousness being sometimes accompanied by sighs, sobs, partial rigidity of the arms, more or less excitement, and a group of phenomena usually denominated hysterical. In animals spinal symptoms are only unequivocally displayed when the inhalation is carried very far, and consists of twitchings, and slight convulsions of the hinder extremities previous to death.

The action of chloroform inhalation on the medulla oblongata has only been unequivocally displayed in animals poisoned with it, by the rapidity and feebleness of the respirations, and by its effects on the heart's action. It is in this way that death seems to be occasioned; namely, by producing first, coma; secondly, asphyxia; and lastly, cessation of the heart's movements, in the same manner as occurred in the experiments of Le Gallois and Wilson Philip. In all the animals examined, the right side of the heart was gorged with venous blood, a fact quite in accordance with this explanation.*

As regards its effects on sensibility and contractility, we have no evidence that chloroform or ether inhalation affects them at all, except just before death. These two properties are adherent in the nerves and muscles respectively, which we have never seen influenced directly, but only indirectly, from chloroform or ether inhalation.

To understand the physiological action of this substance, it is necessary to remember that sensation is dependent, first, on the existence of consciousness, which is a function of the brain proper (that is, all that portion of the encephalon situated above the corpus callosum); secondly, on the integrity of the spinal cord; and, thirdly, on the integrity of the expanded filaments of the nerves, which receive the impression. Loss of sensation may be caused by injuring either of these portions of the nervous system. For, if the nervous filaments are diseased, impressions cannot be received: if the spinal cord be injured, impressions are not transmitted to the brain, and, if the brain be disordered, the consciousness of the impression is not experienced. Now, the object of giving chloroform ought to be to suspend the brain's functions without affecting the spinal cord, the medulla oblongata, or the sensibility of nerves, and thus produce loss of sensation, by rendering the mind unconscious of the impressions made upon nerves. It is questionable, therefore, whether chloroform or ether should be denominated anæsthetic agents, because anæsthesia is generally understood to mean loss of sensibility in a part; whereas, in point of fact, it is suspension of the faculties of mind, and *unconsciousness* of external stimuli, that they produce. In man, this is rendered apparent by the fact, that the functions of circulation, respiration, uterine contractions, &c. &c., proceed during the comatose state, which could not be the case if the sensibility of the nerves distributed to those organs were destroyed. In animals similar facts may at once be demonstrated by the action of galvanism, which, when they are perfectly comatose, produces convulsions, spasms, and other reflex movements.

Another physiological question also arises;

and any of them, with exception of sleep, may therefore be employed.

* The action of chloroform inhalation on the different portions of the nervous system, viz., the brain, spinal cord, and medulla oblongata, are in many cases subject to the control of the medical practitioner, and may each in their turn be made available for useful or injurious purposes. Some persons are much more easily affected by it than others; and hence its proper administration can only be fully carried out by such as are acquainted with its physiological action. Its use by the public as a means of amusement, excitement, or stupefaction, ought to be strictly prohibited.

viz., is the effect on the nervous system produced by the altered action of the heart, or by any change communicated to the blood? Among the most uniform results of inhalation, are the effects it produces on the heart's action, as indicated by the pulse. In a few cases it is unaltered, and in rare instances, after having risen above the normal standard, it falls below it (*Experts.* 10, 12, 13). In two of these instances it coincided with deep stertorous breathing; so that increased action of the heart seems, at first, to produce an effect on the brain, and subsequently the depressed action of this latter organ reacts on the heart, in the same manner as occurs in cases of concussion and lesions of the nervous system. This, however, we have seen to be very rare.

The poisonous action of chloroform, as observed in animals, is precisely similar to that of a pure narcotic—such as opium, for example. In some experiments I had an opportunity of seeing performed by Professor Ludwig, at the University of Marburgh, in the autumn of 1846, the very same effects as those produced by chloroform were just as rapidly occasioned in animals, by injecting a small portion of a strong solution of opium into the veins. In such cases, whilst the cerebral functions were suspended, the spinal actions proceeded without interruption, and all cutting was consequently unattended with sensation. The humanity of this procedure, as contrasted with the old method of performing vivisections, is obvious, and the great convenience of chloroform renders it highly preferable to opium, or any other means of obtaining similar results.

The nature of the change produced in the brain it is somewhat difficult to analyze, because it is not easy to separate the effects of deranged circulation within the cranium from any poisonous influence communicated to the blood itself. In every case where the brain was examined, it seemed perfectly healthy, without any trace of congestion whatever. In this respect it exactly resembled the condition denominated simple apoplexy by Abercrombie. To us, however, it seems clear, that whatever toxic influence may be occasioned, a derangement of the cerebral circulation occurs in the manner and according to the laws pointed out by Monro Secundus, Dr. Kellie, of Leith, and Dr. Abercrombie. I shall not attempt in this Society, to which the accurate experiments and observations of Dr. Kellie were originally communicated, to point out how utterly the recent imperfect experiments and observations of Dr. Burrowes, of London, have failed to shake his conclusions.*

The effect on the blood is not yet very accurately ascertained. I have already observed, that after death in animals it is firmly coagulated, and I have only to add, that the form and colour of the corpuscles are quite unchanged.

During the primary action of chloroform on the system, different sensations seem to be experienced. In the great majority of persons, and especially among females, they are undoubtedly of a highly pleasurable description. In some cases even, where the effects to those looking on are somewhat distressing—when, for example, sobs, tears, and crying, accompany the unconsciousness—on recovery they seem anxious to have it again, and state their feelings to have been delightful, as if they were enjoying pleasant dreams. Small doses, in men, often cause the most extravagant gayety, bursts of laughter, humorous gesticulations, and a similar series of phenomena to that produced on inhaling nitrous oxide gas. The special senses of hearing and sight are also, in some cases, more or less perverted. Humming, buzzing, roaring, and musical noises, are heard in some; whilst in others a mistiness of view, or green or yellow coloration are given to surrounding objects.

The effects on the contractions of the iris are, of course, in connection with the changes produced in the brain. In many cases it underwent no alteration. In a few, especially in those who breathed stertorously, it was somewhat dilated. It was never observed contracted, as in some cases of inflammation of the brain.

Diaphoresis was observed in a few cases, but appeared to be more connected with individual peculiarities than with the physiological effects of chloroform.

The *time* necessary for producing unconsciousness, varied from 40 secs. to 2 mins. In the great majority of cases, the full effect was produced in from 60 to 80 secs.

The medium dose of the chloroform for producing unconsciousness in man, seems to be ℥j. In a few experiments, less sufficed; and in others about twenty drops more were necessary. It has been satisfactorily proved

* See an admirable article disproving Dr. Burrowes' conclusions, in the Monthly Journal for August 1846.

that much depends upon the purity of the preparation, and the mode of inspiration.

Some persons have employed large quantities of chloroform without producing the desired effect. In all such cases it has been impure, or the substance used has only been chloric ether. Its specific gravity ought to be 1·480. M. Soubeiran, in a late memoir read to the Academy of Sciences in Paris, tells us that a rapid method of approximating to this, is by mixing equal parts of strong sulphuric acid and water, and allowing the mixture to cool. A few drops of the chloroform poured into the fluid ought to sink to the bottom, if sufficiently pure for medical use; but if they float on the surface, the chloroform should be rejected. M. Mialhe has also pointed out that chloroform, if pure, and poured into water, sinks to the bottom, preserving its limpidity; but that if it contain alcohol, it is rendered more or less opalescent. It is to the presence of this principle that its irritating local properties are owing.

Again, some persons find it very difficult to take deep inspirations when required. This fact is well known to auscultators, who have often found that, from agitation, or ignorance of what is meant, individuals sometimes repress the respiratory movements, instead of encouraging them. I have often found it necessary to teach some persons how to inspire deeply before applying the stethoscope: and attention to this circumstance, when chloroform is to be inhaled, would no doubt, in some cases, favour its action, as in *Exper.* 3.

The apparatus employed was in all cases, with the exception of one, a simple pocket handkerchief. Numerous instruments, some of a very complicated nature, have been invented for chloroform inhalation. M. Charriene, of Paris, has been extremely fertile in such productions, and it is argued that they save an unnecessary expenditure of chloroform, and prevent its irritant action on the skin of the face—a result which has been rarely observed. These advantages are more than counterbalanced by many inconveniences, especially the expense of preserving, and trouble of carrying an instrument, which is unnecessary. Besides, the public dislike everything in the shape of apparatus, and are prevented by their formidable appearance from using them. Indeed, it is exactly the simplicity of the means employed in administering this agent, that has always appeared to us to constitute one of its greatest merits.

The facts determined by the committee admit of many other comments, and are suggestive of other experiments, which would require a considerable time for their completion. It has therefore been thought better to present such results as have been arrived at without delay, and whilst public interest is still directed to the suoject.

It was my original intention to have entered upon the history of the inhalation of ether and chloroform. The length of this communication, however, obliges me to be very brief on these points. To whom the merit belongs of first suggesting ether inhalation for annulling pain, can perhaps only be finally determined in America, where it was originally promulgated. But I do not hesitate to say, that, as far as I am capable of judging from the facts hitherto published, it ought to be accorded to Mr. Horace Wells.

As regards chloroform, no sooner was Dr. Simpson's discovery announced, than this substance appeared to have been employed experimentally, and used medicinally to an extent up to that time unknown.

Thus, Dr. Glover, of Newcastle, in a series of experiments, recorded in the Harveian Prize Essay, for 1842, pointed out its analogous action on the human economy with iodoform, bromoform, &c. In one experiment where chloroform was injected into the peritoneum, he noticed that, previous to death, the animal had become unusually insensible to the action of stimuli. With him the physiological history of this substance may be said to commence. In a communication published in the *Comptes Rendus de l'Académie des Sciences*, for March 8th, 1847, M. Flourens thus expresses himself: "It may be remembered that chloric ether has given the same results as sulphuric ether. This induced me to try the new body known under the name of chloroform. In a very few minutes (in six in one experiment, and four in a second and third), the animal submitted to the inhalation, was completely etherized. The spinal cord was then exposed; the posterior region, the posterior roots were insensible. Of five anterior roots tried successively, two only preserved their motor power; the others had lost it." Hence the peculiar effects of inhaling this substance were recognized by M. Flourens in animals, but without producing any practical results.

Therapeutically it has been used as a grateful and diffusible stimulus by various

persons. By Mr. Guthrie, of America, in 1831;* by Dr. Formby, of Liverpool, in 1838-39;† by Guillot;‡ by Bell;§ and probably by many others. In some of these cases, more especially that of Mr. Guthrie, although the substance used was called chloric ether, it is almost certain, from the mode of its preparation and density, that it was chloroform more or less impure.

We observe, therefore, in this, what so frequently happens in the history of many discoveries, that several individuals had approached it more or less nearly; but that it was reserved for Professor Simpson, of this University, to perfect it at once, to discover its advantages, experimentally prove their correctness, and point out its practical application for the alleviation and cure of human suffering.

As regards these applications, they have been so fully discussed before this Society, and are extending so rapidly, that it is unnecessary for me to enter upon them. I need only say, that in all those cases where the use of ether has been beneficial, and in many others not previously thought of, the superiority of chloroform has been fully proved.

I cannot conclude without, in my own name and in that of the committee, returning our sincere thanks to Dr. Simpson for the facilities he has afforded us during our inquiries. To all who take an interest in the reputation of the Medical School of Edinburgh, it must be a subject of pride and gratification to reflect, that, whilst it is to America we owe the first important step in annulling pain by inhalation, and whilst in other schools only unimportant modifications of the original idea have been carried into execution, it is to this University, through the talents and energy of one of its professors, that we owe its application to obstetric practice, that we owe simplification of the apparatus, and proper principles of administration, and that we owe, lastly, a new agent of greater power and efficacy, the invaluable benefits of which it is impossible to calculate, and with which the name of Simpson must forever be associated.

* Silliman's American Journal of Science and Art, vols. 21 and 22. 1832.

† Mr. Waldie's communication on Chloroform, read to the Literary and Philosophical Society of Liverpool, Nov. 29th, 1847.

‡ Annuaire Thérapeutique.

§ Pharmaceutical Journal.

Prof. Simpson's Process of Purifying Chloroform.—Prof. SIMPSON believes that the failures and misadventures with chloroform are attributable to using an impure article, or to not giving it in sufficiently large doses. He gives the following directions for purifying chloroform. "This substance as first obtained is to be mixed with half its measure of sulphuric acid, then poured into a retort and distilled from an equal quantity of sulphate of barytes. The product should be allowed to stand over quick lime for two or three days, and then be redistilled."

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Cæsarean Section.—Prof. STOLTZ has performed the Cæsarean operation at the *Clinique d'accouchemens de la Faculté de Médecine.* The patient was placed under the influence of ether, and was wholly insensible.

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Etherization.—The Medical Society of Emulation at Paris, has resolved to address a letter to the prefect of police, urging the necessity of not permitting any persons but those having a legal right to practice medicine and surgery, to resort to etherization. The Society desire the other Medical Societies of Paris to unite with them in this object.—*Gazette des Hôpitaux*, 26th Sep. 1847.

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Another new Anæsthetic Agent — (Benzin.) The vapour of Benzin has been employed by Dr. Snow as an anæsthetic agent in four extractions of teeth in St. George's Hospital, and, with perfect success in preventing pain, although it was not carried so far as to paralyze voluntary motion. Mr. Cæsar Hawkins also employed it in a case of amputation, but its action in this case was not sufficiently favourable to encourage its further use in important operations. *Lancet*, Jan 8th., 1848.

MEDICAL NEWS.

DOMESTIC INTELLIGENCE.

Sanatary Survey of Massachusetts.—The American Statistical Association has presented a petition to the Legislature of Massachusetts, for a sanatary survey of the state. We trust that a memorial to the same effect will be addressed to the legislature of every state in the Union. The subject is one well worthy the attention of the American Medical Association.

Decoction of the Cotton Plant to promote uterine contraction. — Dr. BLACKBURN, of Barnesville, writes to the editor of the *Southern Med. and Surg. Journal*, that he has used a strong decoction of the roots of the cotton plant, in two cases with successful issue, where the ergot had failed.

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Maryland Medical Institute.—Drs. E. W. Theobald, David Stewart, Christopher Johnston, and Charles Frick, have organized in the city of Baltimore, this institute, "with a view of elevating the standard of office instruction, in accordance with the design of the National Medical Convention."

Their plan of instruction is set forth in a prospectus, which may be procured by those who wish for particular information.

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Obituary Record.—It is with extreme regret that we have to record the death of Dr. Thomas Tickell Hewson, which took place in Philadelphia, on the 19th of Feb., at the advanced age of 75. Dr. Hewson was the second son of Mr. Wm. Hewson, the celebrated physiologist, and came to this country in 1786. He has passed through a long career, wholly without reproach—possessing the confidence and regard of a large circle of patients, and the respect and esteem of all his professional brethren. He was for many years one of the Surgeons to the Pennsylvania Hospital, and to the Philadelphia Almshouse, and at the time of his death, he held the honourable office of President of the Philadelphia College of Physicians. He has died regretted, as he lived respected, by all who knew him.

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FOREIGN INTELLIGENCE.

Rupture of Spleen—Hemorrhage—Death. — Dr. LANDOUZY communicated to the French Academy of Medicine the following case:—A man, aged twenty-eight, of a strong constitution, was admitted into the hospital at Rheims on Sept. 10, 1847, with the symptoms of typhoid fever. During the week which preceded his admittance, he had suffered from headache, epistaxis, nausea, diarrhœa, and feverishness; he presented the lenticular eruption of fever, the abdomen was tender on pressure, and up to the 19th of September, the intensity of the disease gradually increased, when the case terminated fatally. On dissection, the characteristic alteration of typhoid fever was found in Peyer's glands, and about twelve ounces of dark fluid blood in the peritoneum. The spleen, six inches in length, was, on its external aspect, lacerated in an extent of one inch; its tissue was softened, and the peritoneum was free from any signs of inflammation.—*Med. Times*, Dec. 4, 1847.

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Detection of Arsenic in the fluid of a blister.—M. Legroux of the Hospital Beaujon, was summoned to a young woman who had the evening before swallowed arsenic for the purpose of committing suicide, but refused at the time to give any explanation of her symptoms. The dejections from the stomach and bowels had been removed, and the urine was scanty. Not having a clear insight into the case, M. Legroux applied a blister, and submitted the serum of the vesication to M. Chatin for analysis, together with some of the urine.

After destroying the organic matters of the serosity and the urine, M. Chatin dissolved the residue in distilled water, and tested for arsenic with Marsh's apparatus. Both fluids gave numerous distinct arsenical stains. The above affords the medical jurist an useful hint in certain cases of poisoning in which it is not possible during life to obtain the excretions for the purpose of analysis.—*Gazette Médicale*, Octobre.

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Vesico-vaginal Fistula.—M. JOBERT has communicated to the French Academy of Sciences, four cases in which he has remedied this deformity by his method of *autoplastie par glissement.*

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Obituary Record—Died at St. Maude, Jan. 2d, 1848, M. A. J. L. JOURDAN, M. D. P., well known by his numerous translations from the German, among which are the works of Sprengel, Meckel, Hufeland, Carus, Tiedemann, Burdach, Müller, and the Encyclopédie Anatomiqué.

—— at Amsterdam, on the 5th of June, Dr. DAVID SOLOMON HEILBRONN, Dean of the Faculty of that capital, Commander of the Royal Netherland Order of the Lyon, Member of the Royal Academy of Sciences, and President of the Israelite Consistory.

—— Dec. 14th, 1847, at Florence, aged 67, SIR JAMES ANNESLEY, F. R. S., &c., late of the Hon. East India Company's Medical Service, and well known for his valuable works on the diseases of India.